L Number	Hits	Search Text	DB	Time stamp
1	136312	hierarch$4 tree	USPAT; US-PGPUB; IBM_TDB	2004/05/25 10:58
2	11898	(hierarch$4 tree) same class$7	USPAT; US-PGPUB; IBM_TDB	2004/05/25 10:39
3	765	((hierarch$4 tree) same class$7) same imag$4	USPAT; US-PGPUB; IBM_TDB	2004/05/25 10:25
4	261	(((hierarch$4 tree) same class$7) same imag$4) same object	USPAT; US-PGPUB; IBM_TDB	2004/05/25 10:27
5	28	((((hierarch$4 tree) same class$7) same imag$4) same object) same attribute	USPAT; US-PGPUB; IBM_TDB	2004/05/25 10:28
6	5238	(hierarch$4 tree) same (lower same upper)	USPAT; US-PGPUB; IBM_TDB	2004/05/25 10:58
7	147	((hierarch$4 tree) same (lower same upper)) same replac$4	USPAT; US-PGPUB; IBM_TDB	2004/05/25 10:58
8	2	(((hierarch$4 tree) same (lower same upper)) same replac$4) same rank	USPAT; US-PGPUB; IBM_TDB	2004/05/25 10:59
9	1862	(hierarch$4 tree) same rank$4	USPAT; US-PGPUB; IBM_TDB	2004/05/25 11:00
10	281	((hierarch$4 tree) same rank$4) same (succ$5 replac$4 chang$4)	USPAT; US-PGPUB; IBM_TDB	2004/05/25 11:00
11	123	(((hierarch$4 tree) same rank$4) same (succ$5 replac$4 chang$4)) same low$4	USPAT; US-PGPUB; IBM_TDB	2004/05/25 11:01
12	39	((((hierarch$4 tree) same rank$4) same (succ$5 replac$4 chang$4)) same low$4) same high$4	USPAT; US-PGPUB; IBM_TDB	2004/05/25 11:01
13	129	(((hierarch$4 tree) same rank$4) same (succ$5 replac$4 chang$4)) same (low$4 down$4)	USPAT; US-PGPUB; IBM_TDB	2004/05/25 11:01
14	45	((((hierarch$4 tree) same rank$4) same (succ$5 replac$4 chang$4)) same (low$4 down$4)) same (high$4 upp$4)	USPAT; US-PGPUB; IBM_TDB	2004/05/25 11:04
15	6	(((((hierarch$4 tree) same rank$4) same (succ$5 replac$4 chang$4)) same (low$4 down$4)) same (high$4 upp$4)) same imag$4	USPAT; US-PGPUB; IBM_TDB	2004/05/25 11:04

L Number	Hits	Search Text	DB	Time stamp
1	136312	hierarch$4 tree	USPAT; US-PGPUB; IBM_TDB	2004/05/25 10:24
2	11898	(hierarch$4 tree) same class$7	USPAT; US-PGPUB; IBM_TDB	2004/05/25 10:25
3	765	((hierarch$4 tree) same class$7) same imag$4	USPAT; US-PGPUB; IBM_TDB	2004/05/25 10:25
4	261	(((hierarch$4 tree) same class$7) same imag$4) same object	USPAT; US-PGPUB; IBM_TDB	2004/05/25 10:27
5	28	((((hierarch$4 tree) same class$7) same imag$4) same object) same attribute	USPAT; US-PGPUB; IBM_TDB	2004/05/25 10:28

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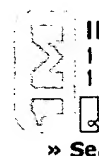☑ IEE Conference proceedings
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US-PAT-NO: 5553211

DOCUMENT-IDENTIFIER: US 5553211 A
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TITLE: Overlapping graphic
pattern display system

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Detailed Description Text - DETX (33):
    MapLayer is a class formed by modeling
map information in a **hierarchical**
structure, as shown in FIG. 14, and contains
as its internal information the
names and the collection of the types of
graphic **images** to be drawn. With
regard to the MapLayer, the item of Class
Layer shown in FIG. 14 shows a
hierarchical structure consisting of the
class Object occupying the uppermost
position, the class Model in the **lower**
position, and the class MapLayer in the
position below that of the Model. The class
layers **succeed** to the functions of
their **upper-ranking** class layers, as
mentioned above. The class MapLayer has
the function of map information formed into
a **hierarchical** structure. Instance
variables correspond to variables used in a
program and express, by their

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A novel object-oriented approach to image analysis retrieval

Metzler, V.   Aach, T.   Thies, C.
Inst. for Signal Process., Med. Univ. of Lubeck , Germany;

This paper appears in: **Image Analysis and Interpretation, 2002. Procee Fifth IEEE Southwest Symposium on**

Abstract:
Common **image** processing tasks such as quantitative analysis, **classificatio image** retrieval require content-based techniques to firstly detect visually per structures that have a semantic interpretation for a specific observer in a cert and secondly to describe their properties in a comprehensive way. To achieve aims, we propose an **object**-oriented approach to **image** interpretation utilizi morphological multiscale decomposition to transform an **image** into a **hierar** structure that represents **image objects** by their topological relations and de **attributes**. The **object hierarchy** can be stored in a relational **image** archiv serves as interface to a rule-based expert system that either evaluates **image** directly or compares them with those of the stored **images**. Thus, both **imag** and retrieval can be realized by appropriate queries to the expert system. The has already been used successfully for quantitative analysis and **classificatio** biomedical and aerial **images**

Index Terms:

content-based retrieval   data structures   expert systems   image representation   ima

resolution   **image** retrieval   mathematical morphology   relational databases   visual c

content-based techniques   descriptive **attributes**   **hierarchical** data structure   **imagε**

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